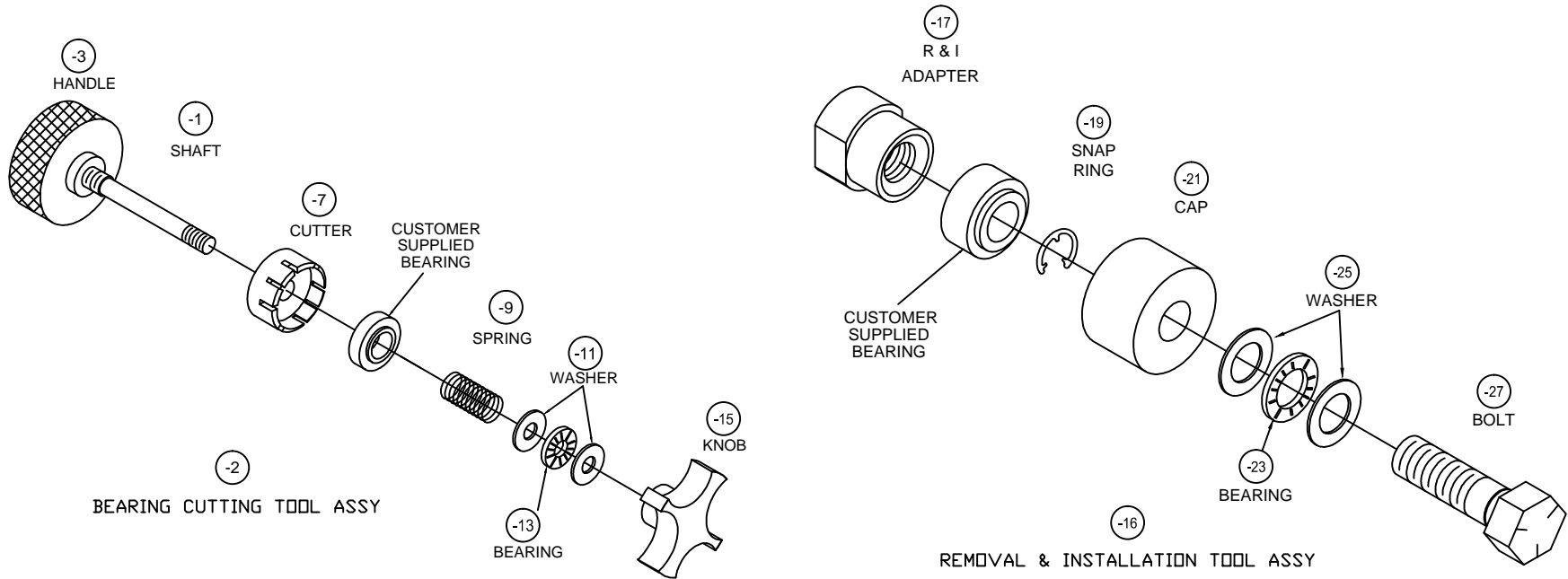


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REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1	RADIAL ANGLE INCREASED FROM 2° TO 5° TO IMPROVE OPERATION.	2/19/04		
1A	CH'D TITLEBLOCK & REVISION BLOCK, CH'D REVISIONS TO NUMERICAL, CORRECTED SECTION VIEWS & LABELED, ADDED DETAIL A P/N-1 TO CLARIFY TAPER.	9/28/09	RJC	RW

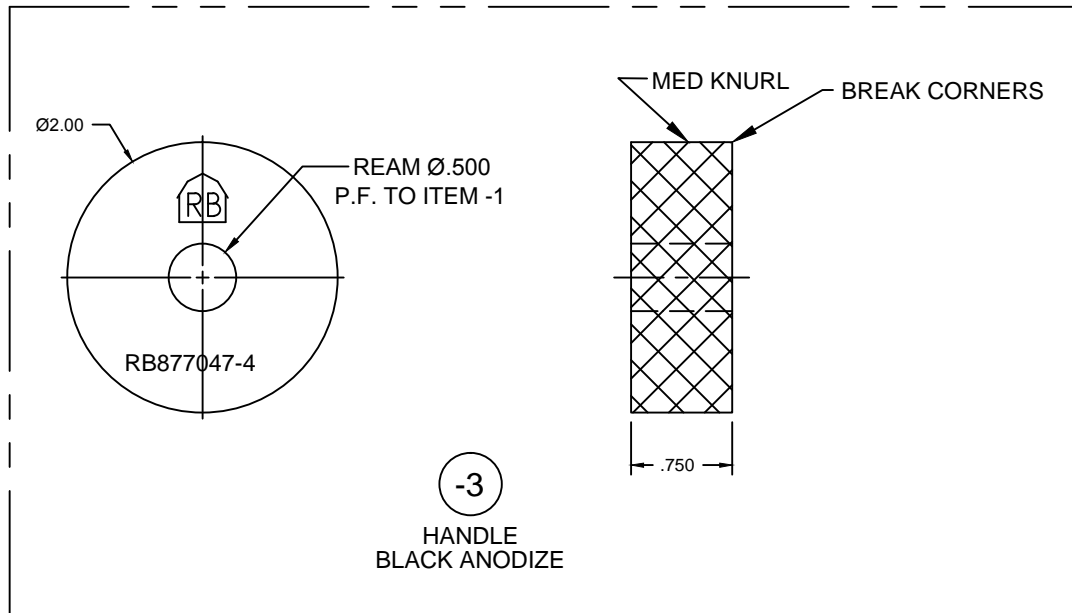
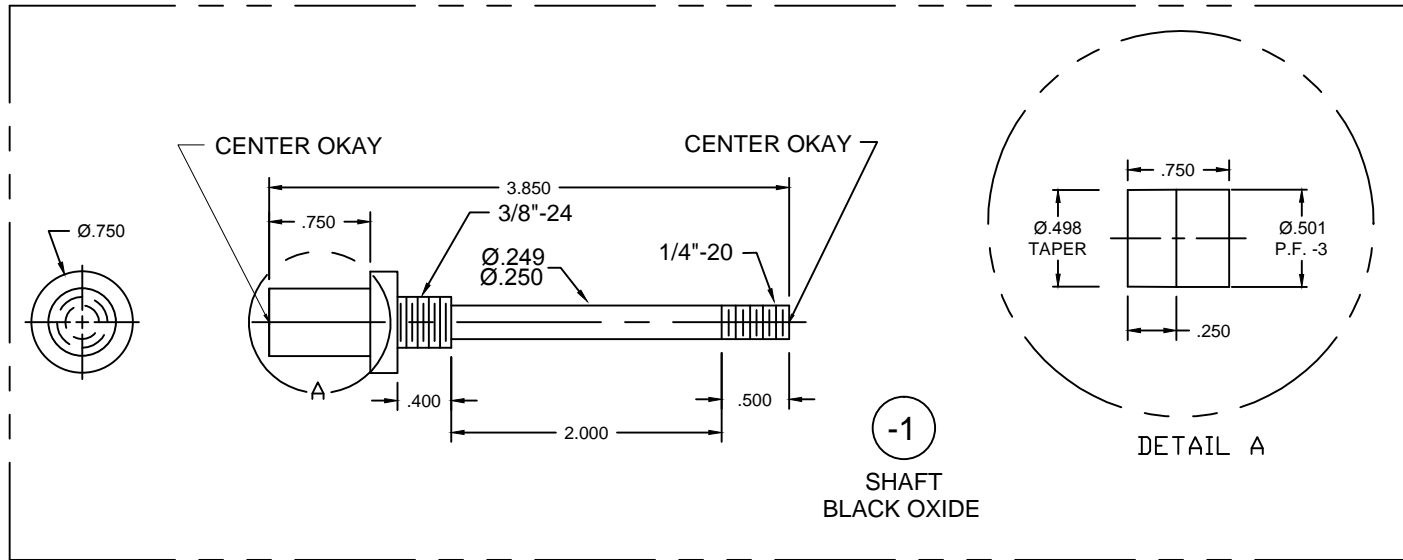


ASSY QTY	ASSY QTY	B/O	PART #	UNIT QTY	DESCRIPTION	MATERIAL	B/O INFORMATION OR SPECIFICATIONS	Pg.
	1		-1		SHAFT	STRESS PROOF	Ø3/4 x 4	2
	1		-2	1	BEARING CUTTING TOOL ASSY			1
	1		-3		HANDLE	6061 T6	Ø2 x 3/4	2
	1		-7		CUTTER	-	GA219A10 SNAP - ON	3
	1	B/O	-9		SPRING	-	5/16 x 2 (EUGENE FASTNER #16)	1
	2	B/O	-11		WASHER	-	TRA-411 (APPLIED INDUSTRIAL)	1
	1	B/O	-13		BEARING	-	NTA411 (APPLIED INDUSTRIAL)	1
	1	B/O	-15		KNOB		DK-54 REID TOOL)	1
	1		-16	1	REMOVAL & INSTALLATION TOOL ASSY			1
	1		-17		R&I ADAPTER	STRESS PROOF	Ø1 x 1-1/16	4
	1	B/O	-19		SNAP RING	-	Ø1/4 EXTERNAL	1
	1		-21		CAP	6061 T6	Ø1 x 3/4	4
	1	B/O	-23		BEARING	-	NTA411 (APPLIED INDUSTRIAL)	1
	2	B/O	-25		WASHER	-	TRA-411 (APPLIED INDUSTRIAL)	1
	1		-27		BOLT	GRADE 5	1/4-28 UNF x 2-1/4 MODIFY	4
ASSY QTY	ASSY QTY							
-16	-2							

RED BARN MACHINE	
TITLE	
SCISSORS BEARING CUTTING TOOL	
DWG NO.	REV
RB877047-4	1A
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON:	
DECIMALS .XXX ± .005 FRACTIONS ± 1/32	
XX ± .01 ANGLES ± 5°	
X ± .1	
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE	DATE
NTS	12-23-03
SHEET 1 of 4	

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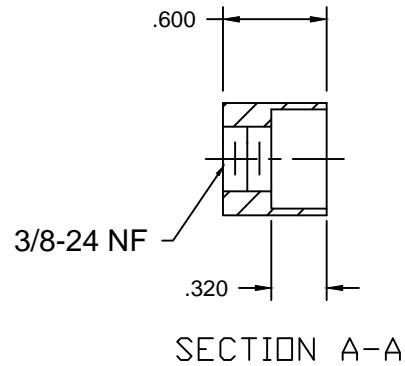
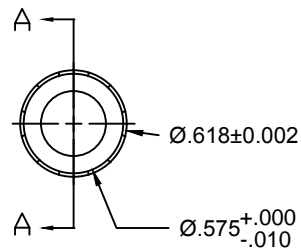
REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1A	CH'D TITLEBLOCK & REVISION BLOCK, CH'D REVISIONS TO NUMERICAL, CORRECTED SECTION VIEWS & LABELED, ADDED DETAIL A P/N-1 TO CLARIFY TAPER.	9/28/09	RJC	-



RED BARN MACHINE			
TITLE SCISSORS BEARING CUTTING TOOL			
DWG NO.	RB877047-4-1 & -3		REV 1A
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DRAWN BY: COLE	
TOLERANCES ON:		APPROVED	
DECIMALS		HEAT TREAT	
XXX ± .005		FINISH SPEC	
XX ± .01		SEE PART	
X ± .1		USED ON MODEL	
UNLESS OTHERWISE SPECIFIED		BELL 47	
1. BREAK ALL SHARP EDGES		BEARING #MS14103-4	
.015 x 45° PR .015 R			
2. DIMENSIONAL LIMITS APPLY AFTER PLATING			
SCALE	NTS	DATE	12-23-03
		SHEET	2 of 4

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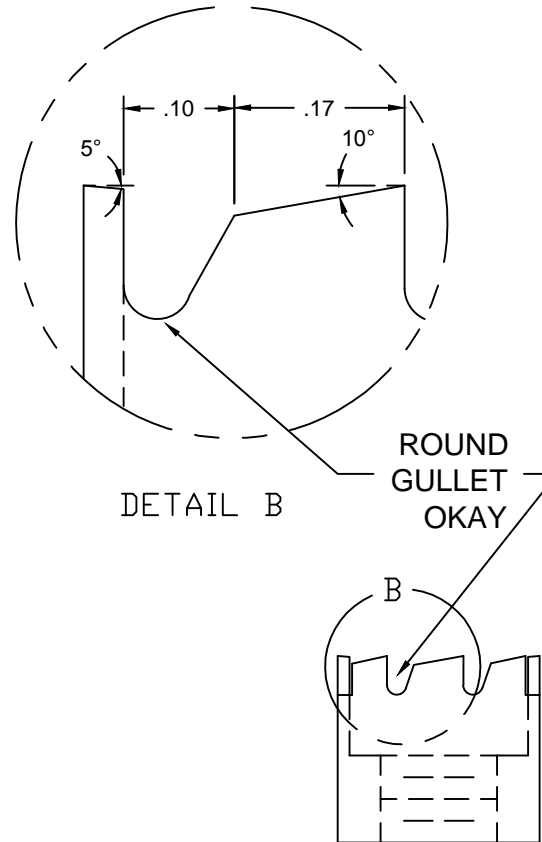
REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1	RADIAL ANGLE INCREASED FROM 2° TO 5° TO IMPROVE OPERATION.	2/19/04		



TURN TO .660
HEAT TREAT: 50-60 Rc
GRIND AFTER HEAT TREAT
NO COATING

-7

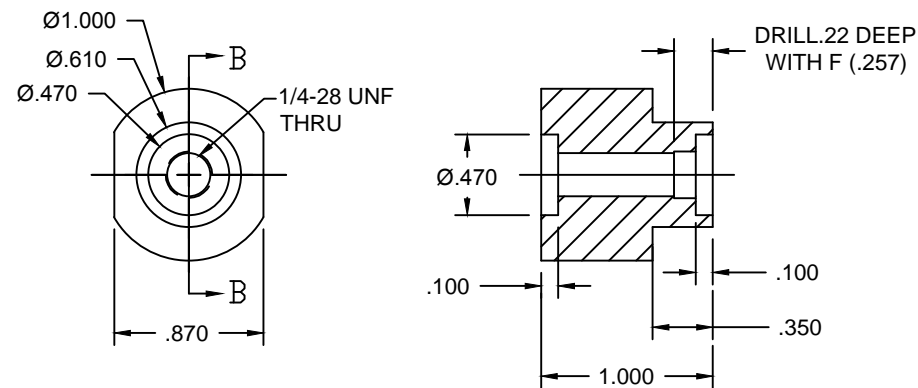
CUTTER
6 TEETH



RED BARN MACHINE	
TITLE SCISSORS BEARING CUTTING TOOL	
DWG NO. RB877047-4-7	REV 1A
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	DRAWN BY: CODE APPROVED HEAT TREAT SEE PART FINISH SPEC USED ON MODEL BELL 47 BEARING #MS14103-4
UNLESS OTHERWISE SPECIFIED 1. BREAK ALL SHARP EDGES .015 x 45° PR .015 R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	SCALE NTS DATE 12-23-03 SHEET 3 of 4

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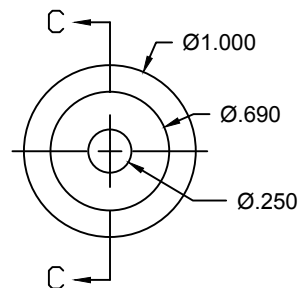
REVISIONS			
REV	DESCRIPTION	DATE	INITIAL



-17

R&I ADAPTER
BLACK OXIDE

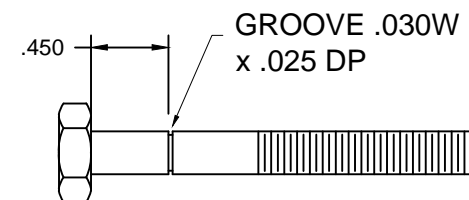
SECTION B-B



-21

CAP
BLACK ANODIZE

SECTION C-C



1/4-28 UNF HEX x 2 1/4
THREADED AT LEAST 1 1/4

-27

BOLT
BLACK OXIDE

RED BARN MACHINE


TITLE SCISSORS BEARING CUTTING TOOL

DWG NO. RB877047-4-17 thru -27 REV 1A

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		DRAWN BY: COLE	
TOLERANCES ON:		APPROVED	
DECIMALS		HEAT TREAT	
.XXX ± .005	FRACTIONS ± 1/32	FINISH	
.XX ± .01	ANGLES ± 5°	SPEC	
X ± .1		USED ON MODEL	
UNLESS OTHERWISE SPECIFIED		BELL 47	
1. BREAK ALL SHARP EDGES		BEARING #MS14103-4	
.015 x 45° PR .015 R			
2. DIMENSIONAL LIMITS APPLY AFTER PLATING			
SCALE NTS	DATE 12-23-03	SHEET 4 of 4	

REVISIONS				
REV	DESCRIPTION	DATE	INITIAL	APPROVED
1	RADIAL ANGLE INCREASED FROM 2° TO 5° TO IMPROVE OPERATION.	2/19/04		
2	CH'D TITLEBLOCK & REVISION BLOCK, CH'D REVISIONS TO NUMERICAL, CH'D CUTTER TEETH PROFILE ADDED .187 DIM & 8° ANGLE TO TEETH	9/23/09	RJC	

ASSY QTY	ASSY QTY	B/O	PART #	QTY	DESCRIPTION	MATERIAL	B/O INFORMATION OR SPECIFICATIONS	Pg.
			-1	1	SHAFT	STRESS PROOF	Ø3/4 x 4	2
			-3	1	HANDLE	6061 T6	Ø2 x 3/4	2
			-7	1	CUTTER		GA219A10 SNAP-ON	2
		B/O	-9	1	SPRING	-	5/16 x 2 EUGENE FASTENER #16	2
		B/O	-11	2	WASHER	-	TRA-411 APPLIED INDUSTRIAL	2
		B/O	-13	1	BEARING	-	NTA411 APPLIED INDUSTRIAL	2
		B/O	-15	1	KNOB	-	DK-54 REID TOOL	2
			-17	2	R & I ADAPTER	STRESS PROOF	Ø1 x 1-1/16	2
			-19	1	SNAP RING	-	Ø1/4	2
			-21	1	CAP	6061 T6	Ø1 x 3/4	2
			-23	1	BEARING	-	NTA411 APPLIED INDUSTRIAL	2
			-25	2	WASHER	-	TRA-411 APPLIED INDUSTRIAL	2
			-27	1	BOLT	GRADE 5	1/4-28 UNF x 2-1/4 MODIFY AS REQUIRED	2
	ASSY #							

 RED BARN MACHINE	
TITLE SCISSORS BEARING CUTTING TOOL	
DWG NO. RB877047-4	REV 2
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	
TOLERANCES ON: DECIMALS .XXX ± .005 .XX ± .01 .X ± .1	DRAWN BY: COLE
APPROVED	
HEAT TREAT FINISH SPEC	
USED ON MODEL	
BELL 47	
BEARING #MS14103-4	
SCALE NTS	DATE 12-23-03
SHEET 1 of 1	